M 7.5, 42 km NE of Anamizu, Japan
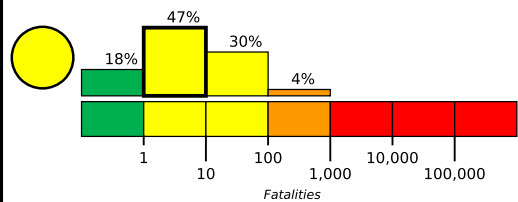
Origin Time: 2024-01-01 07:10:09 UTC (Mon 16:10:09 local)
Location: 37.4976° N 137.2416° E Depth: 10.0 km
FOR TSUNAMI INFORMATION, SEE: tsunami.gov

PAGER
Version 3

Created: 2 hours, 9 minutes after earthquake

Estimated Fatalities
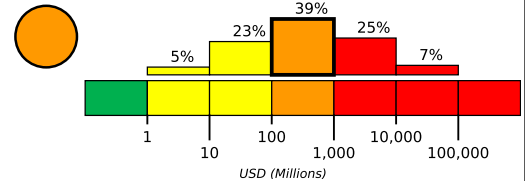

18% 47% 30% 4%

1 10 100 1,000 10,000 100,000
Fatalities

Orange alert for economic losses. Significant damage is likely and the disaster is potentially widespread. Estimated economic losses are less than 1% of GDP of Japan. Past events with this alert level have required a regional or national level response.

Yellow alert for shaking-related fatalities. Some casualties are possible.
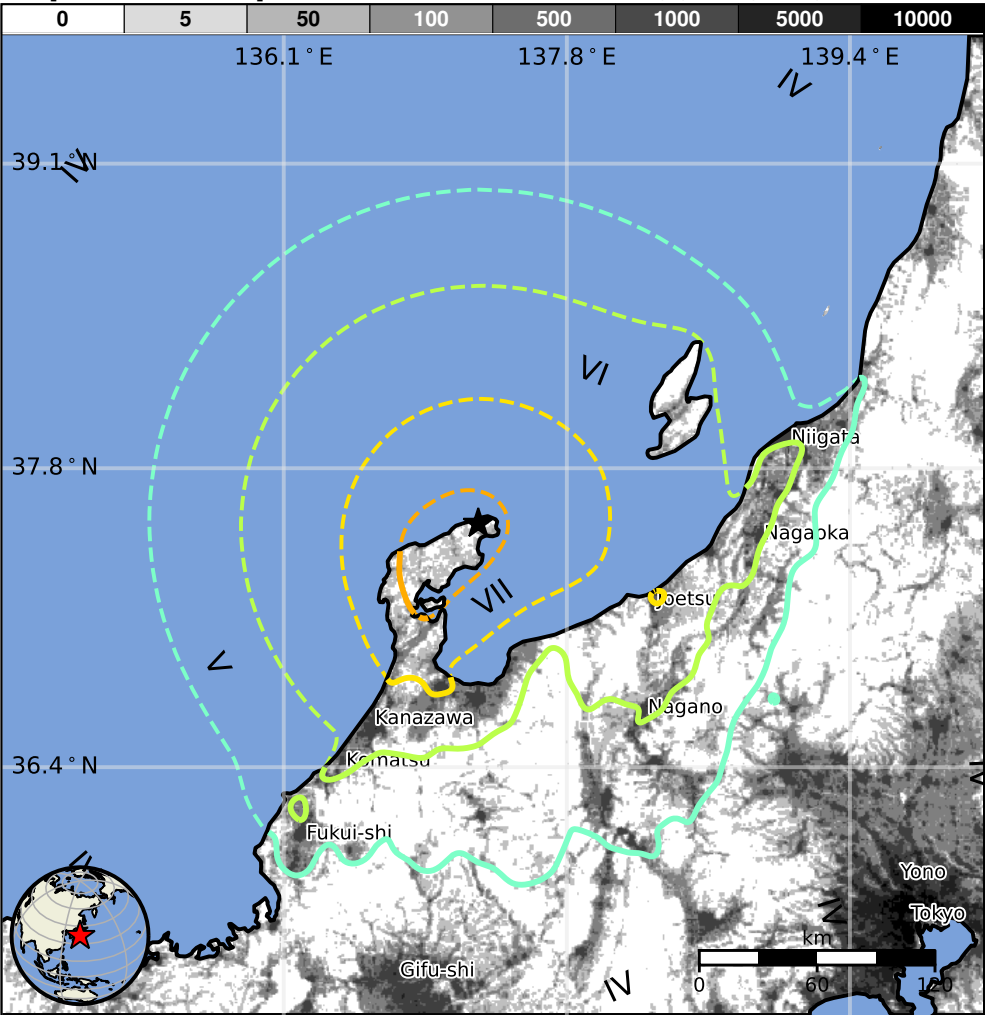
Estimated Economic Losses

5% 23% 39% 25% 7%

1 10 100 1,000 10,000 100,000
USD (Millions)

Estimated Population Exposed to Earthquake Shaking

ESTIMATED POPULATION EXPOSURE (k=x1000)		–*	–*	44,292k*	3,185k	3,775k	536k	120k	0	0
ESTIMATED MODIFIED MERCALLI INTENSITY		I	II-III	IV	V	VI	VII	VIII	IX	X+
PERCEIVED SHAKING		Not felt	Weak	Light	Moderate	Strong	Very Strong	Severe	Violent	Extreme
POTENTIAL DAMAGE	Resistant Structures	None	None	None	V. Light	Light	Moderate	Mod./Heavy	Heavy	V. Heavy
	Vulnerable Structures	None	None	None	Light	Moderate	Mod./Heavy	Heavy	V. Heavy	V. Heavy

*Estimated exposure only includes population within the map area.

Population Exposure

population per 1 sq. km from Landscan

0	5	50	100	500	1000	5000	10000

Structures

Overall, the population in this region resides in structures that are resistant to earthquake shaking, though vulnerable structures exist. The predominant vulnerable building types are heavy wood frame and reinforced/confined masonry construction.

Historical Earthquakes

Date (UTC)	Dist. (km)	Mag.	Max MMI(#)	Shaking Deaths
1984-09-13	189	6.2	VIII(3k)	24
2007-07-16	107	6.6	IX(6k)	9
1995-01-16	381	6.9	IX(1,740k)	6k

Recent earthquakes in this area have caused secondary hazards such as tsunamis, landslides, fires and liquefaction that might have contributed to losses.

Selected City Exposure

from GeoNames.org

MMI	City	Population
VIII	Nanao	45k
VII	Hakui	25k
VII	Himimachi	55k
VII	**Joetsu**	**204k**
VII	Nishishinminato	36k
VII	Takaoka	170k
VI	**Niigata**	**505k**
IV	Saitama	1,193k
IV	Yokohama	3,574k
IV	**Tokyo**	**8,337k**
IV	Chiba	920k

bold cities appear on map.   (k = x1000)

PAGER content is automatically generated, and only considers losses due to structural damage.
Limitations of input data, shaking estimates, and loss models may add uncertainty.
https://earthquake.usgs.gov/earthquakes/eventpage/us6000m0xl#pager

Event ID: us6000m0xl